Amendments to the Specification:

Please amend the paragraph beginning on page 5, at line 17, as shown below:

An embodiment of the present invention will now be described, by way of example only, with reference to the accompanying drawings in which: =

Please amend the paragraph beginning on page 21, at line 29, as shown below:

Step 709 is now described in more detail. At predetermined intervals (e.g. at start up and then once per minute), the CPU 30 suspends the acquisition of values in the driver and passenger transmit phases to measure the DC offset values within the system. These offset values may be due to errors and drift within the detector or may be attributable to signal leakage within the ICP (Integrated Circuit Package). The CPU 30 cycles through the following sequence to remove the DC offset. Initially the driver and passenger transmitters 26, 26' are deactivated. The voltage on the passenger 42 is read several times through the passenger reference receiver antenna 28', this signal is summed, averaged and stored. The voltage on the driver 40 is read several times through the driver reference receiver antenna 28, then summed, averaged and stored. Referring to step 709a, the signal at the primary receiver antenna 22 is obtained several times, summed, averaged and stored. This is repeated at steps 709b, 709c etc for receivers associated with other user inputs. An average of three to five readings at each stage has been shown to work efficiently without causing the system to pause noticeably and thus ~~effect~~ affect efficiency. The stored DC offset values are then used to subsequently subtract from their respective signal readings when transmitting to give an accurate reference level.

Please amend the paragraph beginning on page 24, at line 3, as shown below:

where $0<$~~a~~ $a<1$, provides a filter output ~~y~~ y by combining a fraction of the latest reading x_{new} with some of the previous filter output y_{prev}, slowing down the response to change and thereby reducing the effects of noise. Responses to large changes may be speeded up whilst small

changes may be heavily smoothed by increasing the value of ~~a~~ *a* with the size of the difference between x_{new} and x_{prev}. This type of filtering has been found to eliminate noise without slowing down the system.